# BIODEGRADATION OF PHENANTHRENE BY USING *SPHINGOBACTERIUM SPIRITOVOUM*

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## TABLE OF CONTENTS

## ABSTRACT

### BIODEGRADATION OF PHENANTHRENE BY USING *SPHINGOBACTERIUM SPIRITOVORUM*

Phenanthrene is a low molecular weight of polycylic aromatic hydrocarbons which consist of three fused rings and it was incubated with minimal media and bacteria for about two weeks at 30°C and shaken at 180rpm to determine the degradation rate of phenanthrene by indigenous microbial population. Biodegradation was assessed by determination of PAH concentration and this was done by using gas chromatography-mass spectroscopy. The concentration of PAH decreased as day increases. Phenanthrene biodegradation was approximately 69% after two weeks incubation. Biodegradation rate was increased until day 7 but after that it was slowly reduced.